

LightHouse Series

BTEN-431W-H-SA

Media Converter 10/100 Base-T + CATV Receiver (Stand Alone; Single Fiber)

The Blonder Tongue BTEN-431 is a compact, cost-effective, stand alone copper to single mode optical fiber unmanaged media converter integrated with a high performance 870 MHz CATV receiver. It reliably transports full duplex 10/100 BaseT Ethernet and up to 110 analog NTSC (and/or QAM digital) channels on a single strand of SMF to 10+ km. Fast Ethernet is the best choice for building FTTH systems because of its high performance-to-cost ratio. The unit is ideally suited for direct fiber transmission of IP voice, video and data Ethernet-based signals along with a CATV overlay for a complete FTTH solution. It's easy to install and does not require software configuration or management.

The OTEN-431 is utilized in a VPON network topology to provide plug-and-play point-to-point access when mated with its companion BTEN-231W headend media converter and its integrated WDM for CATV overlay combining. The OTEN-431W can also be mounted into a Blonder Tongue BT-NID-1 weatherproof enclosure and teamed with a UPS battery backup and PoE (Power over Ethernet), powering options for a robust premise gateway.

- 10/100 Ethernet + CATV Transport Over One Fiber;
Compact (6.7"x 5.2"x 1.4") Stand Alone Housing
- Low Power Consumption @ < 6 Watts
- Fully Compliant IEEE 802.3, IEEE 802.3x & IEEE 802.3u
- Data Packet Forwarding & Filtering At Full Wirespeed
(10=>100Mbps; 100=>100Mbps; 10=>10Mbps)
- Full CATV Bandwidth Of 48 To 870 Mhz
- +18dBmV Rf Output And CNR >50dB @ -6dBm Optical Input
- Calibrated Power Meter (1V/mW) And Tri-color Status Led
For Optical Input Indication



**BLONDER
TONGUE**
LABORATORIES, INC.



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○ Specifications

Ethernet

- TP Port: IEEE 802.3 10BaseT; IEEE 803.3u 100BaseTX
Shielded RJ-45 jack with Auto MDI/MDI-X detection
Auto negotiation for speed and duplex auto detection
Forced mode with speed and duplex settings
Speed for 10Mbps or 100Mbps
Full duplex or half-duplex support
- FX Port: 802.3u 100BaseFX compliant
Forced 100Mbps, Full duplex (factory default)
- LED Indicators: Power, TX link/act, FX link/act, transfer speed, duplex mode and collision

Optical Specifications

- Input Range: +2 to -8dBm @ 1550nm (CATV)
-3 to -15dBm @ 1310nm (Ethernet-receive)
- Output Range: -8/-3 dBm (min./max.) @ 1310nm (Ethernet transmit)
- Return Loss: > 50dB with APC connector (8°)
- Test Point: 1V/mV +/- 0.1V; LED: Tri-color for optimal optical input level

CATV Specifications

- RF Port: 48-870 MHz (+/- 1.0dB); +18dBmV output @ -6dBm optical input
Return Loss: 16dB typical
CNR/CSO/CTB (@ -6dBm input): >50dB/>65dBc/>68dBc

Environmental, Electrical & Mechanical

- Environment: Operating Temperature: -5° C to +50° C
Storage Temperature: -20° C to +65° C
Relative Humidity: 5% to 95% (non-condensing)
- Electrical: Power Input: +5 VDC (via BTEN-PS-AC)
Power Consumption: < 6 W
- Mechanical: Dimensions: 6.7" x 5.2" x 1.4"
(95mm x 165mm x 25mm) (L x W x H)
Weight: 0.5 lb (225g)
Cables: (1) Cat. 5 UTP (1) SMF 9/125 μm (1) RG6 (or RG59) Coax
Connectors: (1) RJ-45 (1) SC/APC (1) F-Type

○ Ordering Information

Model	Stock No.	Description
BTEN-431W-H-SA	7470	10/100 BaseT Media Converter/CATV Rx
BTEN-PS-5V	7474	120VAC to +5VDC power supply for BTEN-431W
BTEN-WMKIT-1	7477	Wall Mount Kit for BTEN-431W